

1 **HAND HELD CLEANING DEVICE & METHOD OF ADVERTISING AT AN**
2 **ENTERTAINMENT EVENT**

4 INCORPORATION BY REFERENCE

6 This application is a PCT application based on U. S. provisional patent
7 application Serial No. 60/402,215, entitled "Hand held Cleaning Device & Method of
8 Advertising At An Entertainment Event," filed August 9, 2002. This related
9 application is incorporated herein by reference and made a part of this application. If
10 any conflict arises between the disclosure of the invention in this PCT application
11 and that in the related provisional application, the disclosure in this PCT application
12 shall govern. Moreover, the inventor incorporates herein by reference any and all U.
13 S. patents, U. S. patent applications, and other documents cited or referred to in this
14 application or cited or referred to in the U. S. patents and U. S. patent applications
15 incorporated herein by reference.

16

17 DEFINITIONS

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19 The words "comprising," "having," and "including," and other forms thereof,
20 are intended to be equivalent in meaning and be open ended in that an item or items
21 following any one of these words is not meant to be an exhaustive listing of such
22 item or items, or meant to be limited to only the listed item or items.

23

24 BACKGROUND OF INVENTION

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26 The use of handheld cleaning devices to clean planar surfaces is well known.
27 In sporting events, particularly basketball, it is necessary to wipe periodically sweat
28 from the basketball court during the game. Currently, a cleaning device is used
29 having a rectangular head with towels wrapped around the head and the head
30 rigidly connected to the end of an elongated handle. These cleaning devices are
31 relatively large, heavy and awkward to use. These devices are used to clean planar
32 surfaces for many sporting and entertainment events in addition to basketball, for
33 example, volleyball, boxing, wrestling, plays, stage performances, and other
34 indoor/outdoor activities that utilize a planar surface. The device is used to clean-up
35 sweat, water and other moistures and liquids. Any residue remaining on the floor

1 could spell disaster for the athletes, performers, etc.

2 The towels on these devices are not easily replaceable and are used multiple
3 times tending to push liquid around on a surface rather than absorbing the liquid.
4 Although these devices are effective in cleaning some of the liquid from the surface,
5 an undesirable amount of liquid may remain on the surface after being cleaned.
6 During an event, the user of the device must be able quickly wipe-up any liquid and
7 retreat so as not to interfere with the event. This requires that the device be
8 lightweight, effectively remove moisture or other liquid, and is easy to use in the
9 least amount of time.

10 Contemporary cleaning devices also fail to capitalize on the potential
11 advertisement opportunity inherent in commercialized entertainment events.

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13 SUMMARY OF INVENTION

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15 This invention has one or more features as discussed subsequently herein.
16 After reading the following section entitled "DETAILED DESCRIPTION OF SOME
17 EMBODIMENTS OF THIS INVENTION," one will understand how the features of
18 this invention provide its benefits. The benefits of this invention include, but are not
19 limited to: quickly cleaning a basketball court, stage or other surface on which an
20 entertainment event takes places, advertising while cleaning the surface, and
21 conveniently replacing a used absorbent pad as needed.

22 Without limiting the scope of this invention as expressed by the claims that
23 follow, some, but not necessarily all, of its features are:

24 One, this invention includes a handheld cleaning device comprising a
25 cleaning head having an underside and a topside bearing an visual advertisement
26 exposed for viewing. The advertisement may be on a removable cover member that
27 overlies the topside of the cleaning head and the cover member may cover
28 substantially the entire topside of the cleaning head. The visual advertisement may
29 be for a team participating a sporting event such as, for example, basketball,
30 volleyball, roller skate hockey, a roller derby, badminton, boxing, and wrestling.
31 The visual advertisement may be for a sponsor of the sporting event.

32 Two, the underside and topside of the cleaning head may be substantially
33 planar and an absorbent wiping member may be detachably connected to the
34 underside of the cleaning head. Typically, the wiping member covers substantially
35 the entire planar underside of the cleaning head. It may be a liquid absorbent pad

1 having substantially the same shape as the cleaning head. The liquid absorbent pad
2 may pre-impregnated with a cleaning material. In one embodiment of this invention,
3 the cleaning head is substantially disk shaped having a thickness from about 1/4 to
4 about 1 inch and a diameter from about 12 to about 30 inches. Typically, the
5 combined weight of the cleaning head, wiping member, and the cover member is
6 less than about 3 pounds.

7 Three, the cleaning device of this invention may include a two-component
8 connector that detachably connects the cleaning head and the wiping member. Such
9 a two-component connector may have one component attached to the underside of
10 the cleaning head and another component attached to the topside of the wiping
11 member. One of these components may include a loop element and the other
12 component may include a fabric element. The wiping member may also include
13 support member. In one embodiment, the wiping member comprises a multi-ply
14 cloth absorbent material connected to the support member. In another embodiment,
15 the wiping member includes a foam member positioned between the support
16 member and the multi-ply cloth absorbent material.

17 Four, the cleaning head may include an elongated handle or may not have a
18 handle and be simply manipulated by hand. When a handle is used, it typically
19 includes at least one elongated linear member having a first end connected at or near
20 a central point of the topside cleaning head and second free end enabling a user to
21 grasp the free end and to manipulate the cleaning head. The first end of the handle
22 may be pivotally connected to the cleaning head. For example, a universal joint may
23 pivotally connect the handle to the cleaning head, or a ball and socket may pivotally
24 connect the handle to the cleaning head, or a T-joint may pivotally connect the
25 handle to the cleaning head. When a universal joint or ball and socket are used, the
26 first end of the handle is pivotally and rotatably connected to the cleaning head. The
27 handle may comprise at least two telescopically connect members enabling the
28 length of the handle to be manually adjusted. When the cleaning head does not use a
29 handle, it may include a hand-retaining member attached to the topside of the
30 cleaning head. This hand-retaining member may include an adjustable strap and
31 this strap may include a self-locking component. For example, the self-locking
32 component may comprise a hook component at one end of the strap and a fabric
33 component at the other end of the strap.

34 These features are not listed in any rank order nor is this list intended to be
35 exhaustive.

1 This invention also includes a method of advertising at an entertainment
2 event at least in part employing a substantially planar surface where at least a
3 portion of the event is conducted. The planar surface may have nearby seats at least
4 in part occupied by one or more spectators and the event may be televised. From
5 time to time the planar surface is cleaned to remove liquid there from. In accordance
6 with the method of this invention, periodically the planar surface the liquid is wiped
7 with a device that has an exterior displaying a visual advertisement. When the event
8 is televised, as the planar surface is being wiped, a television camera captures an
9 electronic image of the device, including the advertisement, and displays an
10 electronic image of this advertisement on a TV screen. When the planar surface is
11 nearby spectator seats for the event, the seats are positioned to enable a spectator in
12 one of the seats to view the planar surface and observe the advertisement displayed
13 on the device as the planar surface is being wiped. The advertisement is sufficiently
14 large for a spectator to view from his or her seat. In one embodiment of this method,
15 a removable cover member on the device bearing the advertisement is from time to
16 time replaced with a different advertisement. The advertisement may for a team
17 participating in a sporting event such as discussed above. Or, the advertisement
18 may for a sponsor of a sporting event.

DESCRIPTION OF DRAWINGS

22 The preferred embodiments of this invention, illustrating all its features, will
23 now be discussed in detail. These embodiments depict the novel and non-obvious
24 device and method of this invention as shown in the accompanying drawings, which
25 are for illustrative purposes only. These drawings includes the following figures
26 (Figs.), with like numerals indicating like parts:

28 Fig. 1 is a perspective view of one embodiment of the cleaning device of this
29 invention.

30 Fig. 2 is a perspective view of another embodiment of the cleaning device of
31 this invention.

32 Fig. 3 is a sectional view taken along line 3-3 of Fig. 2.

33 Fig. 4 is a sectional view taken along line 4-4 of Fig. 2.

34 Fig. 5 is a cross-sectional view taken along line 5-5 of Fig. 4.

35 Fig. 6 is a cross-sectional view taken along line 6-6 of Fig. 3.

1 Fig. 7 is an exploded perspective view of an embodiment of the cleaning
2 device of this invention using a removable cover member.

3 Fig. 8 is a perspective view of an embodiment of the hand held cleaning
4 device of this invention without a handle.

5 Fig. 9 is an exploded perspective view of the embodiment of the cleaning
6 device of this invention shown in Fig. 8.

7 Fig. 10 is a partially exploded perspective view, with a section broken away,
8 of another embodiment of the cleaning device of this invention having an adjustable
9 handle.

10 Fig. 11 is an enlarged fragmentary view, with a section broken away, of an
11 embodiment of the cleaning device of this invention using a U-joint pivot member.

12 Fig. 12 is a cross-sectional view taken along line 12-12 of Fig. 10 showing an
13 eccentric member in a locked position.

14 Fig. 13 is a cross-sectional view similar to that shown in Fig. 12 showing the
15 eccentric member in an unlocked position.

16 Fig. 14 is a perspective view of a basketball court illustrating the use of the
17 cleaning device of this invention to wipe up liquid from the floor of the court.
18

19 DETAILED DESCRIPTION OF SOME EMBODIMENTS OF THIS INVENTION 20

21 Fig. 1 depicts one embodiment of this invention, the hand held cleaning
22 device 10. This device 10 includes a rigid, disk shaped cleaning head 12, a
23 detachable disk shaped absorbent wiping pad 14 having substantially the same
24 diameter as the head 12, and an elongated, lengthwise adjustable handle 16. A
25 pivot member 11 connects the handle's distal end 16a to the center of the topside 12a
26 of the head 12. The cleaning head 12 typically has a thickness from about 1/4 to
27 about 1 inch and a diameter from about 12 to about 30 inches. The head 12, the
28 handle 16, and other parts of the invention may be made of plastic, for example,
29 polyvinyl chloride (PVC), or other lightweight rigid material. The handle may be a
30 single rod that is not adjustable lengthwise, or as best shown in Fig. 10, comprises a
31 pair of tubes 42a and 42 telescopically connected so that the tube 42a slides laterally
32 within the tube 42b. A conventional eccentric 70 at the end of the tube 42a is offset
33 mounted at x with respect to the center C1 axis this tube. The eccentric 70 has a
34 rough circumferential edge 70a for gripping the internal surface of the tube 42b.
35 When the tube 42a is rotate in one direction the eccentric locks the tubes 42a and 42b

1 in an immovable position as shown in Fig. 12. When rotated in the opposite
2 direction, the tubes 42a and 42b are unlocked as shown in Fig. 13, allowing the tubes
3 to be pulled apart to adjust the length of the handle 16.

4 The wiping pad 14 may comprises one or more layers of material such as, for
5 example, cloth 34 that absorbs water, sweat, and / or other liquids, and to which dirt
6 tends to cling. This cloth 34 may be impregnated with a cleanser or other chemicals
7 that are commonly employed to clean and maintain planar surfaces S (Fig. 14) of
8 stages or other floors upon which entertainment events are conducted. As depicted
9 in Fig. 5, the pad 14, in addition to the cloth 34, may comprise a foam layer 36
10 disposed between a rigid, disk shaped support member 32 made of light weight
11 plastic. The cloth 34 is sewn, or otherwise fixedly attached, to the foam layer 36. The
12 foam layer 36 may be glued, or otherwise fixedly attached, to the disk shaped
13 support member 32.

14 As best illustrated in Figs. 5 and 6, the absorbent wiping pad 14 is connected
15 to the underside surface 32b (Fig. 3) of the head 12 by a conventional two-
16 component connector 30, for example, hook and fabric connectors such as sold by
17 the Velcro Corporation. Other types of two-component connectors may, however,
18 be used. The outer surface 32a of the support member 32 has the one component,
19 hook members 30a, of the two-component connector 30 fastened securely thereto.
20 The other component 30b of the two-component connector 30 is a fabric sheet F
21 fastened securely to the inner surface 32b of the head 12.

22 In hand held cleaning device 10, the pivot member 11 comprises a
23 conventional ball and socket mechanism 22 that enables the head 12 to swivel. A
24 custodian C (Fig. 14) swirls the head 12 as the cloth 34 bears against the surface S by
25 grasping the handle's free proximal end 16b and manipulating the handle in the
26 different directions shown by the arrows a and b. The handle 16 pivots about the
27 ball and socket mechanism 22 with respect to the head 12 both right and left (arrow
28 a) and back and forth (arrow b). Another embodiment, the cleaning device 50
29 depicted in Figs. 2 and 6, employs a conventional T-joint pivot member 24.
30 Consequently, it is different from the cleaning device 10 in that the handle 16 only
31 pivots about T-joint pivot member 24 with respect to the head 12 back and forth as
32 indicated by the arrow c. Another embodiment, the cleaning device 100 depicted in
33 Figs. 10 and 11, employs a conventional Universal or U-joint pivot member 18. Like
34 the cleaning device 10, the handle 16 in the device 50 pivots about the U-joint pivot
35 member 18 with respect to the head 12 both right and left and back and forth.

1 Another embodiment, the hand held cleaning device 150 illustrated in Figs. 8
2 and 9, does not use a handle. Instead an adjustable strap 28 aids the custodian C in
3 holding and pressing the device 150 downward against the surface S and
4 simultaneously manipulate it to wipe liquid or dirt from the surface S. At one end
5 28a, the strap 28 is sewn, or otherwise fixedly attached, to the topside 12a of the head
6 12. A metal ring 31 is also fixedly attached to the topside 12a, enabling a free end
7 28b of the strap 28 to pass through the ring and be looped back upon itself, so that this
8 free end of the strap overlies the end 28a. A conventional two-component connector
9 like that discussed above provides a way to connect and disconnect the ends 28a and
10 28b to fit the size of the custodian's hand H, shown in dotted lines in Fig. 8. One
11 component A is fix to the end 28b and the other component B is fix to the end 28b,
12 with both components A and B on the same side of the strap 28 so that these
13 components face each other when the strap is looped back upon itself as depicted in
14 Figs. 8 and 9.

15 In accordance with one feature of this invention, the topside 12a of the head
16 12 bears a visual advertisement 40 such as, for example, NO SWEAT™ WIPE. The
17 advertisement 40 may be for a team participating a sporting event conducted on the
18 surface S, for example, basketball, volleyball, roller skate hockey, roller derby,
19 badminton, boxing, wrestling, etc. The advertisement may be for any business. But
20 a sponsor of the event being conducted on the surface S most advantageously
21 displays an advertisement on the head 12. Such sponsors typically are purveyors of
22 sporting equipment and clothing and tobacco and beverage companies.

23 In accordance with another feature of this invention, the advertisement 40
24 may be, as illustrated by another embodiment, the cleaning device 200 depicted in
25 Fig. 7, displayed on a removable cover member 20 that overlies the topside 12a of the
26 head. Preferably, the removable cover member 20 is detachably connected by a two-
27 component connector like that discussed above, with the cover being made of a
28 fabric and the hook members 30a fixed to the topside 12a. The combined weight of
29 the cleaning head 12, wiping member 14, and the cover member 20 is typically less
30 than 3 pounds. The multiple cover members 20 with the different advertisement
31 thereon enable the advertisement 40 from time to time to be change by simply
32 replacing one cover member for another.

33 In accordance with still another feature of this invention, as illustrated in Fig.
34 14, an entertainment event is televised, and during the course of televising the event,
35 the surface S is wiped. A TV camera 44 takes a picture of the custodian C wiping the

1 surface S, focusing the camera 44 on the advertisement 40 and displaying an
2 electronic image of this advertisement 40 on a TV screen 44a, televising wiping the
3 planar surface S including the advertisement displayed on the device. The electronic
4 image of this advertisement 40 may be broadcasted over the air, by cable, or even by
5 a global computer network. The surface S is nearby spectator seats 80 that are
6 positioned to enable a spectator 48 in one of the seats to view the surface S and
7 observe the advertisement 40 displayed on the device as the surface is being wiped.
8 Thus, even if the event is not televised, this invention capitalizes on the potential
9 advertisement opportunity inherent in commercialized entertainment events
10 attended by a large number of spectators.

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SCOPE OF THE INVENTION

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14 The above presents a description of the best mode contemplated of carrying
15 out the present invention, and of the manner and process of making and using it, in
16 such full, clear, concise, and exact terms as to enable any person skilled in the art to
17 which it pertains to make and use this invention. This invention is, however,
18 susceptible to modifications and alternate constructions from that discussed above
19 which are fully equivalent. Consequently, it is not the intention to limit this
20 invention to the particular embodiments disclosed. On the contrary, the intention is
21 to cover all modifications and alternate constructions coming within the spirit and
22 scope of the invention as generally expressed by the following claims, which
23 particularly point out and distinctly claim the subject matter of the invention: